



International Civil Aviation Organization

**THE TENTH MEETING OF THE SOUTH EAST
ASIA AND BAY OF BENGAL SUB-REGIONAL
ADS-B IMPLEMENTATION WORKING GROUP
(SEA/BOB ADS-B WG/10)**



Singapore, 11 - 13 November 2014

**Agenda Item 3: Review implementation and co-ordination activities and sub-regional
implementation plans**

UPDATE OF ADS-B ACTIVITIES IN THE SOUTH CHINA SEA

(Presented by China)

SUMMARY

This information paper presents the preliminary project of ADS-B in South China Sea. The project progress and the technical details are described.

1. Introduction

1.1 In order to meet the needs of route L642 and M771 in ADS-B surveillance control, and to solve the problem of ADS-B surveillance capacity shortage in Sanya FIR. CAAC now proceed a project for the ADS-B application. The project includes 4 ADS-B ground stations, Automation system upgrading of Sanya ACC, ADS-B information network and GPS RAIM system.

2. Discussion

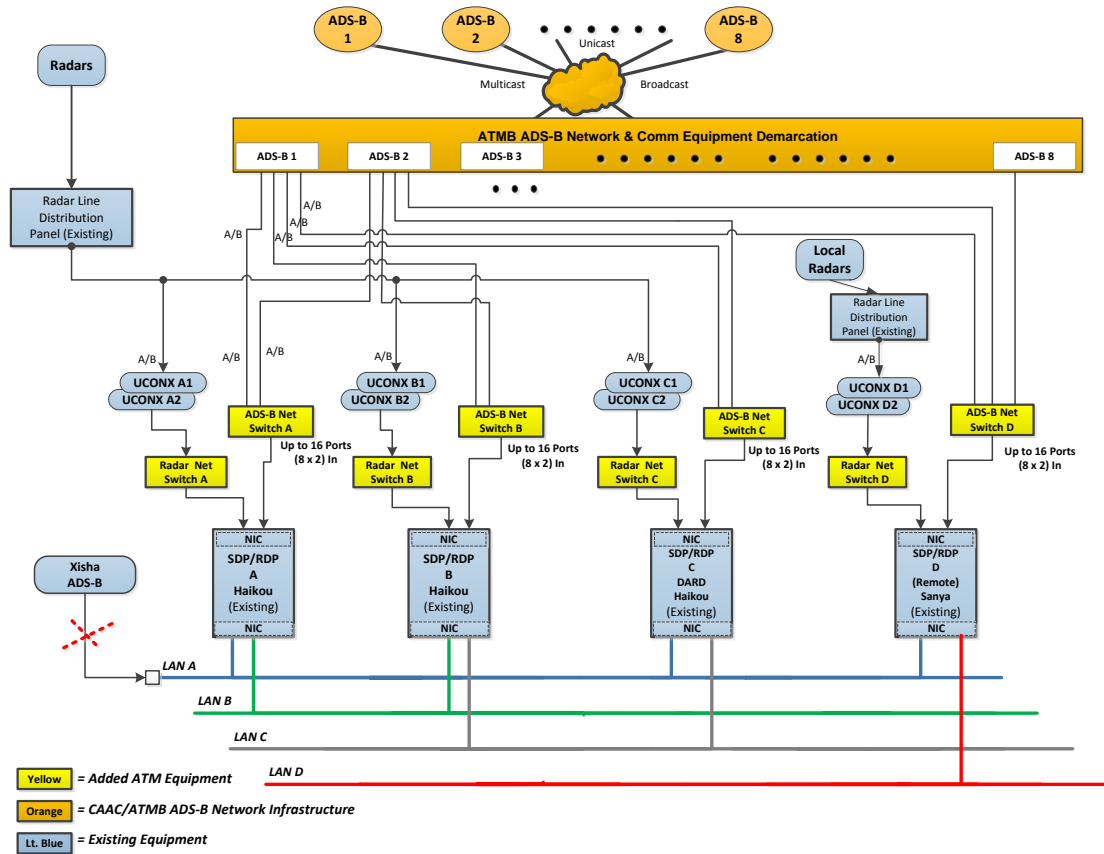
All equipments have been send to site, now are in installation.

2.1 ADS-B Ground Stations

- 1) System using two independent channel from antenna to output interface.
- 2) System using the high gain Omni-directional antenna.

2.2 Upgrading of Automation system

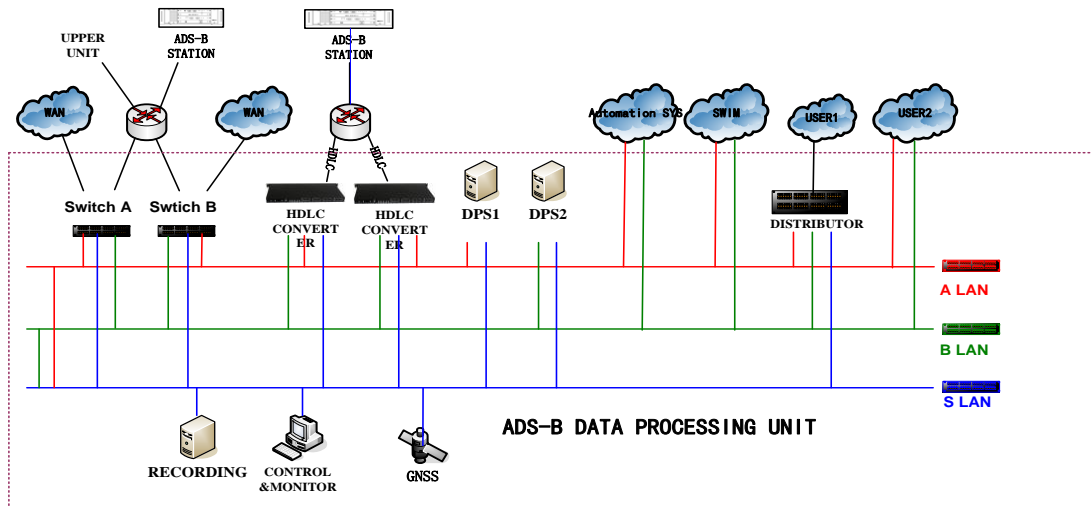
- 1) Support redundant inputs from ADS-B stations.
- 2) Support UDP broadcast and multi-cast ADS-B inputs.
- 3) Identify poor quality ADS-B reports and apply the White & Black List.
- 4) Accept ADS-B input via Cat 21 version 0.23, 0.26 and 2.1.
- 5) Process and Display ADS-B special alerts.
- 6) Using ICAO 24 bit code and flight ID to improve track association and flight Plan correlation.



2.3 ADS-B information network

ADS-B information network includes ADS-B Data Processing Unit and transmission network.

ADS-B Data Processing Unit receives all ADS-B reports from different stations, and do verify, evaluate, record, distribute



2.4 GPS RAIM

GPS Receiver Autonomous Integrity Monitoring system receive the satellite ephemeris and other info, to generate the furcating-picture of certain area. The system can help controllers to do judgment about the GPS availability. Controllers can change pattern or do re-route.

3. Action by the meeting

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.
